

CLAIMS

1. A process for the detection or quantification of eosinophils and basophils, characterised in that it comprises bringing a sample optionally containing said eosinophils or basophils into contact with an IL-5 anti-receptor (alpha chain) monoclonal antibody which does not interfere with the fixing of IL-5 to its receptor and which does not inhibit the biological activity of IL-5 in order to detect and, if desired, to quantify the eosinophils and basophils.

2. A process according to claim 1, characterised in that the IL-5 anti-receptor monoclonal antibody is an antibody which does not interfere with IgE.

3. A process according to claim 1 or 2, characterised in that the IL-5 anti-receptor monoclonal antibody is an antibody which does not interfere with the cell activation of eosinophils or basophils.

4. A process according to one of claims 1 to 3, characterised in that the detection and, if desired, the quantification of eosinophils or basophils uses a flow cytometer or optical scanning cytometer.

5. A process according to one of claims 1 to 4, characterised in that, in addition, the sample is brought into contact with other monoclonal antibodies directed against other markers of the eosinophil or basophil cell types.

6. A process according to claim 5, characterised in that the other monoclonal antibodies are directed against the markers CD3, CD16 and CD19.

7. A process according to one of claims 1 to 6, characterised in that the detection or quantification of activated basophils is carried out by, in addition, bringing the sample into contact with one or more other monoclonal antibodies directed against basophil activation markers.

8. A process according to claim 7, characterised in that the activation marker is the CD63 antigen.

9. A process according to one of claims 1 to 6, characterised in that the detection or quantification of activated eosinophils is carried out by, in addition, bringing the

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sample into contact with one or more other monoclonal antibodies directed against eosinophil activation markers.

10. A process for the detection and quantification of activated eosinophils according to claim 9, characterised in that the activation marker is the CD69 antigen.

5 11. An anti-IL-5R antibody characterised by:

- the absence of interference with the fixing of IL-5 to its receptor,
- the absence of interference with IgE,
- the absence of interference with cell activation of eosinophils or basophils,
- the absence of inhibition of the biological activity of IL-5.

10 12. A kit for the detection or quantification of eosinophils and basophils containing

- an anti-IL-5R monoclonal antibody according to claim 11 conjugated to a first fluorochrome,
- a mixture of antibody markers for lymphocytes, monocytes and neutrophils, conjugated to a second fluorochrome.

15 13. A kit for the detection and quantification of activated eosinophils and basophils containing

- an anti-IL-5R monoclonal antibody according to claim 11 conjugated to a first fluorochrome,
- a mixture of antibody markers for lymphocytes, monocytes and neutrophils, conjugated to a second fluorochrome and
- ~~antibodies directed against activation markers and conjugated to a third fluorochrome.~~

20 14. A kit for the detection or quantification of the oxidative activity of
25 eosinophils or basophils containing

- an anti-IL-5R monoclonal antibody according to claim 11 conjugated to a first fluorochrome,
- a mixture of antibody markers for lymphocytes, monocytes and neutrophils, conjugated to a second fluorochrome,
- a marker substrate for the oxidative activity of eosinophils or basophils.

15. A kit according to one of claims 12 to 14 applied to the study of allergic, parasitic or leukaemic pathologies.

16. A process, antibody or kit according to one of claims 1 to 15, characterised in that the IL-5 anti-receptor monoclonal antibody is an antibody of the IgG1 type, the
5 corresponding hybridoma of which was lodged with the Collection Nationale de Culture de Micro-organismes (CNCM) under no. 1-2068.

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